

Notice of Allowability

Application No.

10/712,555

Examiner

Alain L. Bashore

Applicant(s)

GIEROW ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12-26-06.
2. ☒ The allowed claim(s) is/are 1-20 and 24-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ALAIN L. BASHORE
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mixon on 3-2-07.

The application has been amended as follows:

In claim 1: Line 4, delete "high" and insert in place --sufficient--;
 Line 10, after "coating" insert --for photogrammetric analysis--.

In claim 20: Line 3, after "material" insert --with solvent--;
 Line 4, delete "high" and insert in place --sufficient--;
 Line 6, after "coating" insert --for photogrammetric analysis--.

Cancel claims 21-23;

Art Unit: 1762

In claim 24: Line 3, after "material" insert --from a mixture of diffuse material with a solvent--;

Line 4, delete "high" and insert in place --sufficient--;

Line 11, after "coating" insert --for photogrammetric analysis--.

In claim 25: Line 3, "solution" insert --from a mixture of diffuse material with a solvent--;

Line 7: delete "high" and insert in place --sufficient--;

Line 12, after "coating" insert --for photogrammetric analysis--.

In claim 26: Line 3, after membrane insert --from a mixture of a diffuse material with a solvent--;

Line 4: delete "high" and insert in place --sufficient--;

Line 8, after "coating" insert --for photogrammetric analysis--.

Allowable Subject Matter

2. Claims 1-20, 24-26 are allowed.

Reasons for allowance

3. The following is an examiner's statement of reasons for allowance:

The present invention includes independent claims 1, 20, 24, 25, and 26. All independent claims recite a method for applying a target reflector to an object for photogrammetric analysis.

Humpal et al considered the closest prior art. Humpal teaches a method for applying reflective elements. A diffuse material with sufficient index of refraction allows the reflection of light from a light source across an array of angles.

Humpal et al does not disclose the claimed combination including:

In claim 1:

mixing a diffuse material with a solvent, where the diffuse material has sufficient index of refraction so that the diffuse material will reflect light from a light source across an array of angles;

applying the diffuse material, and the solvent to the surface of the object so that the diffuse material bonds with the surface of the object; and

applying a reflective coating to the surface of the object over the diffuse material and solvent, where the diffuse material forms a target reflector underneath. The reflective coating for photogrammetric analysis.

Art Unit: 1762

In claim 20:

step for applying a diffuse material with a solvent to the surface of the object;
and where the diffuse material has a sufficient index of refraction so that the diffuse material will reflect light from a light source across an array of angles; and
step for applying a reflective material over the surface of the object for photogrammetric analysis.

In claim 24:

casting a diffuse material in a film where the diffuse material from a mixture of a diffuse material with a solvent has a sufficient index of refraction so that the diffuse material will reflect light from a light source across an array of angles;
punching segments of the diffuse material from the film and onto to the surface of the object, where the segments of diffuse material are held in place with adhesive; and
applying a layer of reflective metalized coating to the surface of the object, where the segments of diffuse material form target reflectors on the surface of the object for photogrammetric analysis.

Art Unit: 1762

In claim 25:

applying a liquid solution from a mixture of a diffuse material with a solvent of membrane material to a substrate, where the substrate has at least one diffuse areas on its surface;

curing the liquid solution of membrane material to form a membrane, where the diffuse area of the substrate form a diffuse area in the membrane, where the diffuse area in the membrane has a sufficient index of refraction so that the diffuse material will reflect light from a light source across an array of angles;

removing the membrane from the substrate; and

applying a reflective coating to the surface of the object, where the diffuse area of the membrane forms a target reflector for photogrammetric analysis.

In claim 26:

step for forming a diffuse area on a membrane from a mixture of a diffuse material with a solvent that casts the object,

where the diffuse material in the membrane has a sufficient index of refraction so that the diffuse area will reflect light from a light source across an array of angles; and

step for applying a reflective material over the membrane so that a

target reflector is formed on the object for photogrammetric analysis.

For these reasons claims 1, 20, 24, 25, and 26 are deemed to be allowable over the prior art of record, and claims 2-10, 12-19 are allowable by dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Drawings

4. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings filed 11-12-03 are considered informal in nature. Formal drawings are now required. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

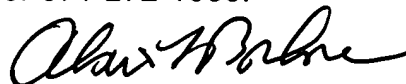
Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alain L. Bashore
Primary Examiner
Art Unit 1762